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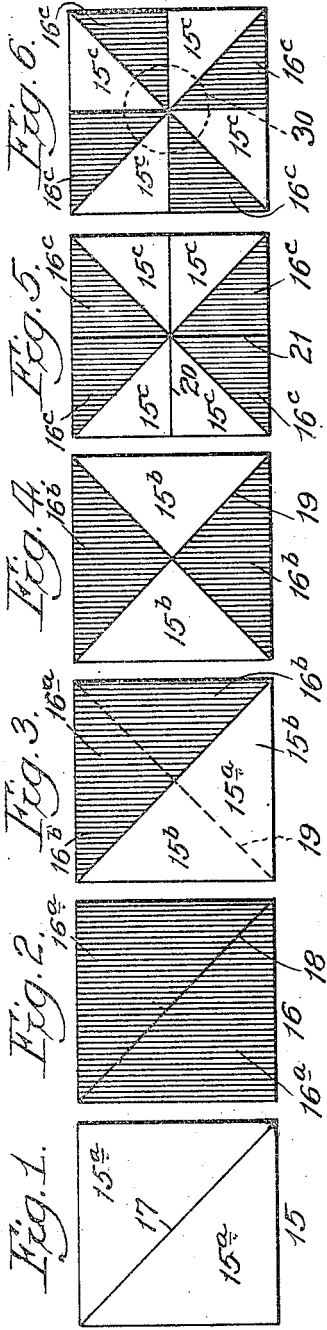


Fig. 7.

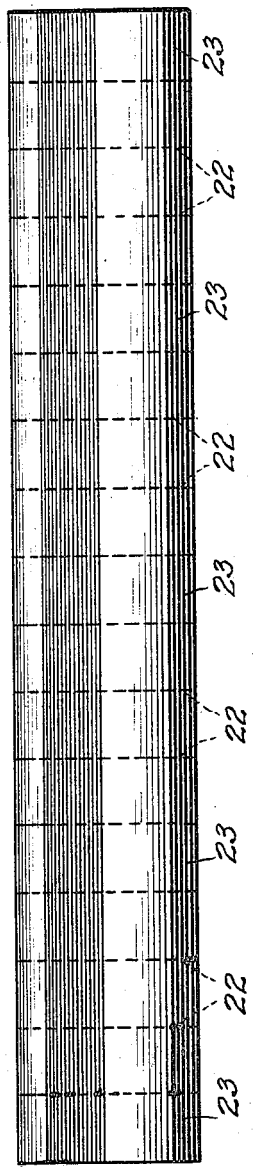
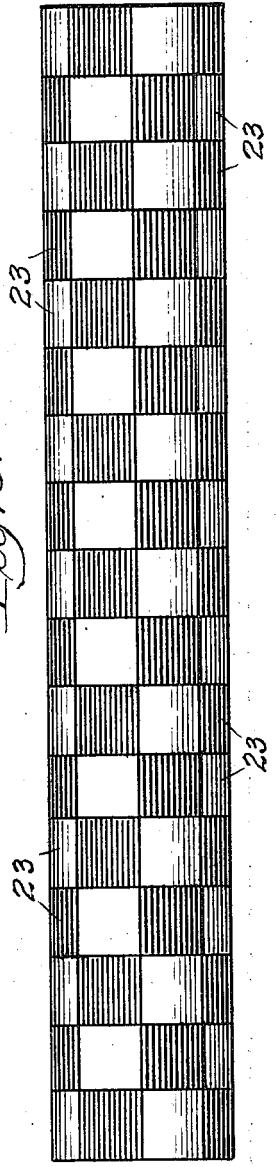


Fig. 8.

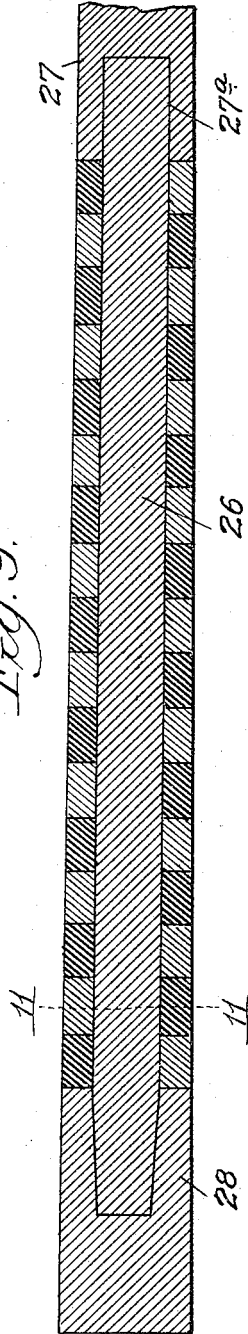


Witness:
 John Anders

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 Olaf Carlson and Hugo Pick
 by Fred Gerlach
 Their Atty.

1,241,194.

Fig. 9.



Witness:
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Fig. 10.

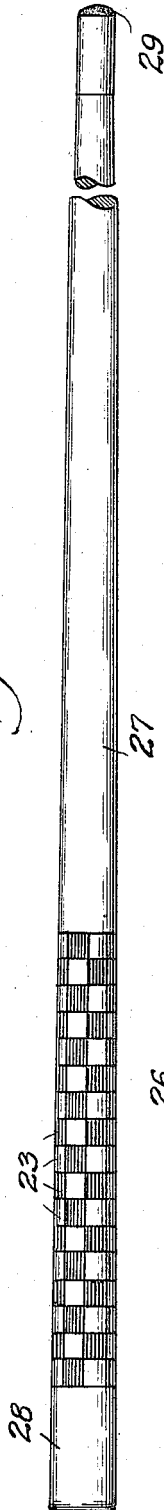


Fig. 11.

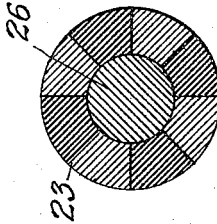


Fig. 12.

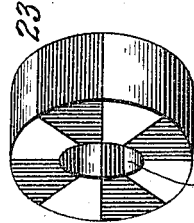


Fig. 13.

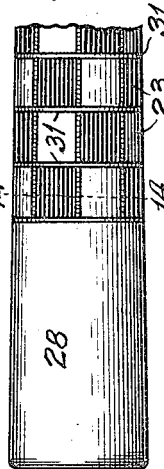


Fig. 14.

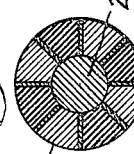
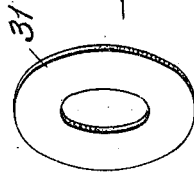


Fig. 15.



Inventors:
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UNITED STATES PATENT OFFICE.

OLAF CARLSON AND HUGO PICK, OF CHICAGO, ILLINOIS, ASSIGNORS TO ALBERT PICK & COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

MANUFACTURE OF BILLIARD-CUES.

1,241,194.

Specification of Letters Patent. Patented Sept. 25, 1917.

Application filed June 7, 1915. Serial No. 32,519.

To all whom it may concern:

Be it known that we, OLAF CARLSON and HUGO PICK, residents of Chicago, in the county of Cook and State of Illinois, have invented new and useful Improvements in Manufacture of Billiard-Cues, of which the following is a full, clear, and exact description.

The invention relates to the manufacture of billiard cues.

One object of the invention is to provide a simple and inexpensive method for producing billiard cues, having handles which are formed of woods or materials of different color and in which the parts of the handle are formed so that they will permanently retain their design and shape.

A further object of the invention is to provide an improved cue having a composite handle in which the parts are secured together to give the handle an attractive ornamental effect.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

In the drawings: Figures 1 to 6 are sections showing the successive steps in forming the stock for the handle. Fig. 7 is a side elevation of the stock shown in Fig. 6. Fig. 8 is a side elevation of the stock for the ornamental handle portion before it is placed on the cue and turned to the desired shape. Fig. 9 is a longitudinal section of the handle portion of the cue. Fig. 10 is an elevation of a finished cue. Fig. 11 is a section taken on line 11—11 of Fig. 9. Fig. 12 is a perspective of one of the composite rings. Fig. 13 is a side elevation of a portion of a handle embodying a modified form of the invention. Fig. 14 is a section on line 14—14 of Fig. 13. Fig. 15 is a perspective of one of the veneer disks placed between the rings in the modification shown in Fig. 13.

In the manufacture of cues according to the present invention, a strip of rectangular light wood 15 and a strip of dark wood or differently colored wood, shown in Figs. 1 and 2, respectively, and of sufficient length to form the complete ornamental handle portion of a cue, are each cut longitudinally on a diagonal line, as indicated at 17 and 18. This cutting causes each of the differently colored strips 15 and 16 to be divided into

like triangular strips of the same size in cross-section. The strip 15 will then be severed into two triangular strips 15^a and the strip 16 will be similarly severed to form triangular strips 16^a. Next, one of the strips 15^a and one of the strips 16^a are assembled and secured together by glue with the diagonal faces abutting, as indicated in Fig. 3 and next, this composite rectangular strip will be cut on a diagonal line, as indicated at 19, across the strips 15^a, 16^a, so that the rectangular strip will be divided into two composite triangular strips, each of which consists of triangular strips 15^b and 16^b of different colors. Next, the triangular strips are rearranged, as indicated in Fig. 4, by turning the composite strips to bring the light and dark portions into strips 15^b, 16^b into alternating arrangement and in such position the abutting diagonal faces of the composite strips are glued together at 19. Next, the rectangular strip organized as shown in Fig. 4 will be severed into four composite strips by cutting the same on lines 20 and 21 so that each rectangular strip will be severed into four composite rectangular strips, each consisting of a strip 15^c of wood of one color and a strip 16^c of wood of the other color. Next, these rectangular composite strips will be rearranged, as indicated in Fig. 6, so that the dark and light strips will be in alternating relation and then the abutting faces of the composite strips will be secured together. The composite strip thus formed will be of a length to correspond substantially to the ornamental handle-portion of a cue, as shown in Fig. 7. Next, a central hole 30 will be bored longitudinally through the composite strip and then the strip will be cut transversely on dotted lines 22 to sever the strip into rings 23, each of which will be composed of alternately arranged triangular sections of light and dark wood. These rings are adapted to fit on a dowel pin 26 which may be integrally formed with the body 27 of the cue or separately formed and secured in a recess 27^a in said body. These composite rings are then placed on dowel pin 26 and are arranged thereon so that the light sections of one ring will be disposed between the dark sections of contiguous rings and when thus arranged, the rings will be glued together and glued onto the dowel pin. A butt 28 will then be secured on the project-

ing terminal of the dowel pin 26 so that the rings will be confined between the butt and the inner end of the body-portion 27 of the cue and so that all portions of the cue will be fixedly secured together. Next, the stock will be put in a lathe and turned to the desired cylindrical or tapered form and when that has been done, the composite handle-portion will have the appearance shown in Fig. 10, similar to a checker board. The tip 29 of the cue may be of any suitable construction, as well understood in the art.

In the modified form of the invention, shown in Figs. 13, 14 and 15, the strips of colored veneer are interposed between the triangular strips forming the rings. That is to say, after each cutting operation, the strips, instead of being glued together directly, are glued together with a strip of veneer therebetween, so that there will be strips of veneer in the rings between the sections thereof. Veneered disks 31 are interposed and glued between the rings as they are arranged on the dowel pin. These strips of veneer give a more finished appearance to the sections and may be colored differently from the sections, if desired, to improve the design or appearance of the stock.

The invention thus exemplifies a method of making cues with ornamental handles, in which the handle portions are formed of wood or material of different color or appearance, which can be produced at a comparatively low cost, because all portions of the stock are utilized and because the necessity of separately forming and fitting each of the small units is avoided. A cue formed with an ornamental handle thus made is more durable than if the design or ornamentation were formed by veneer upon the periphery of the handle.

While, wood is the preferred material used in the manufacture of these cues, it will be understood that other material may be used.

It will also be understood that certain features of the invention may be utilized in

making handles for devices similar to cues, such as canes.

The invention is not to be understood as restricted to the precise practice set forth, since this may be modified within the scope of the appended claims, without departing from the spirit and scope of the invention.

Having thus described the invention, what we claim as new and desire to secure by Letters Patent, is:

1. That improvement in the manufacture of handles, which consists in cutting strips of different stock longitudinally, arranging and securing the strips in alternating relation, cutting the composite strip transversely to form composite sections, and then rearranging the sections and securing them together in handle form so that the different portions of contiguous sections will be disposed alternately and longitudinally.

2. That improvement in the manufacture of handles, which consists in placing longitudinally extending strips of different material together in alternating relation, forming a hole longitudinally through the composite strip, cutting the composite strip transversely to form composite rings, and rearranging the rings and securing them together in handle form so that different portions of the contiguous rings will be disposed alternately and lengthwise of the handle.

3. A cue, comprising a body, a tip, and a handle formed of rings, said rings each being formed of segmental alternating sections of different material, the segments of one ring being disposed alternately with respect to the like segments of contiguous rings.

4. A cue, comprising a body, a tip, a handle formed of rings, said rings each being formed of segmental alternating sections of different material, the segments of one ring being disposed alternately with respect to the like segments of contiguous rings, and a pin on the cue body and extending through said rings.

OLAF CARLSON.
HUGO PICK.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."